

REMARKS

This Voluntary Amendment is submitted in response to the outstanding Advisory Action, dated March 25, 2008. The present application was filed on February 22, 2002 with claims 1 through 26. Claims 1, 3, and 18-26 were cancelled in the 5 Amendment and Response to Office Action dated April 13, 2007. Claims 2 and 4-17 are presently pending in the above-identified patent application. Claims 4, 16, and 17 are proposed to be amended herein. A Request for Continued Examination is being submitted herewith.

In the Office Action, the abstract was objected to due to indicated 10 informalities, and claims 2 and 4-17 were rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter.

Formal Objections

The abstract was objected to due to indicated informalities. In particular, the Examiner asserts that the abstract is missing punctuation marks.

15 Applicants have reviewed the abstract submitted in the previous response and have found no missing punctuation marks. In any case, the Abstract has been amended to add the punctuation cited by the Examiner.

Section 101 Rejection

Claims 1-17 and 26 were rejected under 35 U.S.C. §101 because the 20 claimed invention is directed to non-statutory subject matter. In particular, the Examiner asserts that the claimed invention does not “transform” an article or physical object to a different state or thing because it merely identifies patterns in sequences. The Examiner asserts that this does not preclude patentability, but asserts that at least one embodiment does not produce a tangible result. Furthermore, the Examiner asserts that converting one 25 set of data to another set of data is not considered as a physical transformation because it does not represent transformation of an article or physical object to a different state or thing, and it does not represent physical activities. The Examiner asserts that the claims do not use the final result or make it available to be used by a user. In the Advisory Action dated March 25, 2008, the Examiner asserts that support could not be found in the 30 specification for the amended limitation “providing at least said at least one new motif as

an output, wherein said method is performed by a processor" and that "the new step does not clearly output the final result to a user so that the result is available to be used" and that "simply providing it as an output does not mean it is outputted to a user."

The Supreme Court has stated that the "[t]ransformation and reduction of an article 'to a different state or thing' is the clue to patentability of a process claim." 5 Gottschalk v. Benson, 409 U.S. 63, 70, 175 U.S.P.Q. (BNA) 676 (1972). In other words, claims that require some kind of transformation of subject matter, which has been held to include intangible subject matter, such as data or signals, that are representative of or constitute physical activity or objects have been held to comply with Section 101. See, 10 for example, *In re Warmerdam*, 31 U.S.P.Q.2d (BNA) 1754, 1759 n.5 (Fed. Cir. 1994) or *In re Schrader*, 22 F.3d 290, 295, 30 U.S.P.Q.2d (BNA) 1455, 1459 n.12 (Fed. Cir. 1994).

Thus, as expressly set forth in each of the independent claims, the claimed methods or system describe pattern discovery on an input sequence and transform an input sequence to derive a plurality of concatenated motifs, or transform motifs to derive 15 redundant motifs. This transformation to concatenated or redundant motifs provides a useful, concrete and tangible result

Regarding the Examiner's assertion that the claimed invention does not "transform" an article or physical object to a different state or thing because it merely identifies patterns in sequences, Applicants note that the claimed invention creates new motifs. 20

Regarding the Examiner's assertion that the claims do not use the final result or make it available to be used by a user, Applicants note that the independent claims have been amended to require providing at least said at least one new motif as an output to a user. Support for this amendment can be found on page 7, lines 12-16; page 25 18, lines 23-24; and FIG. 1, element 130, of the originally filed disclosure.

Applicants also note that independent claim 4 has been amended to require wherein said method is performed by a processor. Support for this amendment can be found on page 24, lines 17-18, and claim 16 of the originally filed disclosure.

Applicants submit that each of the claims are in full compliance with 35 30 U.S.C. §101. Accordingly, Applicants respectfully request that the rejection under 35

If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Examiner is invited to contact the undersigned at the telephone number indicated below

The Examiner's attention to this matter is appreciated.

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Respectfully submitted,

/Kevin M. Mason/

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